

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013142**Date Inspected:** 20-Mar-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

<b>CWI Name:</b>	Li Yang and Wu Zhi Cheng	<b>CWI Present:</b>	Yes	No
<b>Inspected CWI report:</b>	Yes No N/A	<b>Rod Oven in Use:</b>	Yes	No N/A
<b>Electrode to specification:</b>	Yes No N/A	<b>Weld Procedures Followed:</b>	Yes	No N/A
<b>Qualified Welders:</b>	Yes No N/A	<b>Verified Joint Fit-up:</b>	Yes	No N/A
<b>Approved Drawings:</b>	Yes No N/A	<b>Approved WPS:</b>	Yes	No N/A
		<b>Delayed / Cancelled:</b>	Yes	No N/A
<b>Bridge No:</b>	34-0006	<b>Component:</b>	OBG Trial Assembly	

**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

CB5 (Cat Walk)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Cross Beam CB5 at area between PP 38 and PP 39. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00292 Dated March 20, 2010.

Bolt sizes used were M16 x 40 RC Set# DHGM160019 and final torque required was 200 N-m and

Bolt sizes used were M16 x 50 RC Set# DHGM160011 and final torque required was 200 N-m.

Manual Torque wrench was been used with Sr. No. XQ2-114.

Please refer the pictures with Tag no. 1 for more comprehensive details.

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### Segment 5BW (Cable Tray)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Segment 5BW at area between PP 32 and PP 33. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00293 Dated March 20, 2010.

Bolt sizes used were M3/4 x 2 1/4 RC Set# DHG60580 and final torque required was 340 N-m

Manual Torque wrench was been used with Sr. No. XQ2-114.

Please refer the pictures with Tag no. 2 for more comprehensive details.

### Segment 5AW (Cat Walk Handrails)

This Quality Assurance (QA) Inspector witnessed final tension verification for Bolts Installed at Segment 5BW at area between PP 29, PP 30 and PP 31. Inspected 10% on a random basis and found the Rotation of Nut to be in general compliance. Inspection was performed against the Notification No. 00291 Dated March 19, 2010.

Bolt sizes used were M16 x 95 RC Set# DHGM160017 and final torque required was manual tightness due to Fiber Glass Grating.

Manual Torque wrench was been used with Sr. No. XQ2-114.

### Segment 7CE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 048047 performing Shielded Metal Arc Welding process for weld CA039-004 located on PCMK weld between edge panel and deck panel (cross beam side) in OBG segment 7CE. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G (2F) -FCM-Repair-1. Critical weld repair report identified as B-CWR1227.

### Segment 7AE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 054467 performing Shielded Metal Arc Welding process for weld SEG034B-018 located on PCMK longitudinal diaphragm top flange to floor beam at PP49 (bike path side). The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F)-FCM-Repair-1. Critical weld repair report identified as B-WR11094.

### Segment 7AE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 037932 performing Shielded Metal Arc Welding process for weld CA033-006 located on PCMK weld between deck panel and edge panel (bike path side). The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-TC-U4B-FCM-1.

### Segment 7CW-7BW

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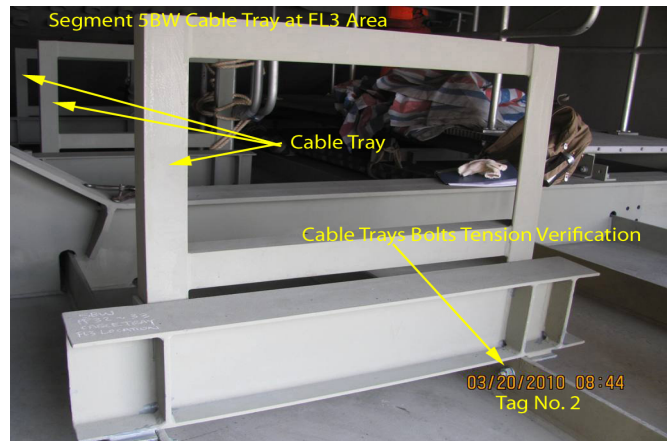
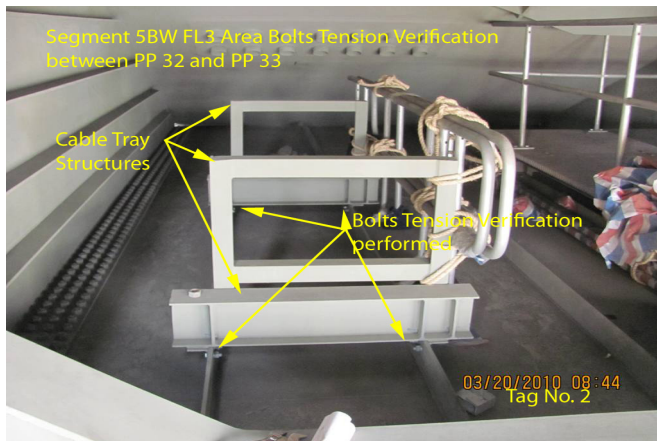
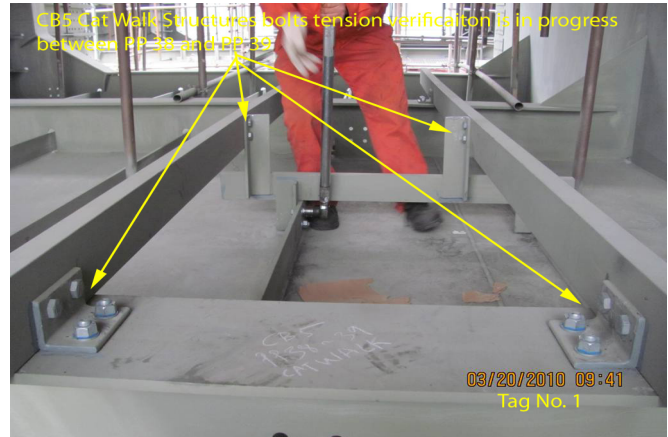
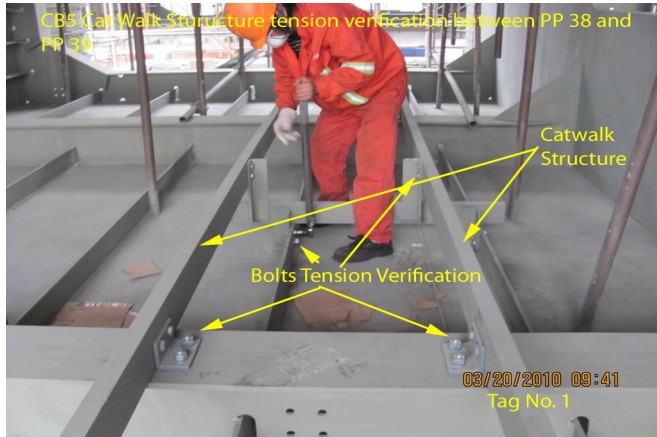
# WELDING INSPECTION REPORT

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This Quality Assurance (QA) Inspector observed ZPMC qualified welders 066361, 045196, 066326 performing Shielded Metal Arc Welding process for weld OBW7-008 located on PCMK deck panel splice weld between OBG segment 7CW and 7BW. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2-FCM-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



## Summary of Conversations:

No relevant conversations.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

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**Inspected By:** Math,Manjunath

Quality Assurance Inspector

**Reviewed By:** Miller,Mark

QA Reviewer

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